

Amendments to the Claims

Please amend claims 1, 7-9, 10 and 36-37 as follows:

1. (*Currently amended*) A method of operating a concatenated contact image-sensing module scanner to scan an object, the method comprising:

providing a first contact image sensor module for executing a first document reading session through a trigger of a start pulse, and then the first contact image sensor module outputting a corresponding first scanned image signal;

providing a second contact image sensor module operatively connected to the first contact image sensor module for executing a second document reading session and then the second contact image sensor module outputting a corresponding second scanned image signal,

wherein the first and second contact image sensor modules are positioned facing towards each other to scan both sides of the object inserted between the first and second contact image sensor modules. the first and the second scanned image signals are selected to be outputted sequentially via an interface to a computing device that executes a software module to integrate the first and the second scanned image signals to recover an image of the object.

2. (*Previously amended*) The method of claim 1, further comprising providing a first end pulse from the first contact image sensor module to the second contact image sensor module for triggering an execution of the second reading session.

3. (*Previously amended*) The method of claim 1, further comprising providing an analog switch for receiving the first and the second scanned image signals, wherein the analog switch further includes an internal counter therein, the internal counter sets a predetermined period of time in order to have the analog switch to select and output one of the first and the second scanned image signals in a sequential manner.

4. (*Previously amended*) The method of claim 1, wherein the interface is a USB interface.

5. *(Previously amended)* The method of claim 1, further comprising providing a timing generator for the start pulse to the first contact image sensor module.

6. *(Previously amended)* The method of claim 1, wherein the first contact image sensor module further outputs a first end pulse to the second contact image sensor module as the first document reading session is finished, for triggering an execution of the second document reading session.

7. *(Currently amended)* The method of claim 1, wherein the object has ~~both a front side and a back~~ sides, and the first contact image sensor module and the second contact image sensor module are disposed directly face to face to scan ~~the both sides of the front and back sides of the~~ object simultaneously, and wherein the image of the object includes respective images of both sides of the object.

8. *(Currently amended)* An optical scanner comprising:

a concatenated contact image-sensing module having at least first and second contact image sensor modules, each operatively connected to another in series; and

a timing generator, providing a clocking signal to each of the first and second contact image sensor modules positioned facing towards each other to scan both sides of an object inserted between the first and second contact image sensor modules, for providing a start pulse into the first contact image sensor module to trigger a first document reading session thereof and output a first scanned image signal, wherein the second contact image sensor module is caused to perform a second document reading session once triggered and outputting a second scanned image signal, wherein the first and the second contact image sensor modules are triggered sequentially and the first and the second scanned image signals are selected to be outputted sequentially via an interface to a computing device that executes a software module to integrate the first and the second scanned image signals to recover an image of the object.

9. *(Currently amended)* The optical scanner of claim 8, wherein the first contact image

sensor module and the second contact image sensor module are disposed oppositely ~~with respect to each other~~ face to face directly to scan both sides of the object at the same time, wherein the first and the second contact image sensor modules are operated sequentially.

10. *(Currently amended)* The optical scanner of claim 8, wherein the first document reading session of the first contact image sensor module and the second document reading session of the second contact image sensor modules are operated take place sequentially.

11. *(Previously amended)* The optical scanner of claim 8, further comprising at least one analog-to-digital converter for receiving the first and the second scanned image signals outputted from the first and the second document reading sessions, respectively, and converting the first and the second scanned image signals into corresponding digitalized forms.

12. *(Previously amended)* The optical scanner of claim 11, further comprising a digitalized image processor operatively connected to the analog-to-digital converter for receiving the first and the second scanned image signals in digitalized forms.

13. *(Previously amended)* The optical scanner of claim 8, further comprising an analog switch operatively connected to the first and the second contact image sensor modules for receiving the first and the second scanned image signals, and selecting and then outputting one of the first and the second scanned image signals.

14. *(Previously amended)* The optical scanner of claim 13, wherein the analog switch further includes an internal counter for setting a predetermined period of time in order to select and then output one of the first and the second scanned image signals within the predetermined period of time duration.

15. *(Previously amended)* The optical scanner of claim 8, wherein the first and the

second contact image sensor modules output a first and a second end pulses to the second and a subsequent contact image sensor module if there is one, in order to trigger the second and the subsequent contact image sensor modules sequentially.

16. *(Original)* The optical scanner of claim 8, further comprising at least one interface for interfacing the optical scanner with at least one computer.

17. *(Original)* The optical scanner of claim 8, wherein the interface is an USB-based interface.

18. *(Previously amended)* The optical scanner of claim 8 further comprising: a light source to illuminate the object.

19. *(Original)* The optical scanner of claim 18, wherein the light source is a colorful or monochromatic visible light.

20. *(Original)* The optical scanner of claim 18, wherein the light source is an invisible light.

21. *(Original)* The optical scanner of claim 20, wherein the invisible light is an infrared (IR) or ultraviolet (UV) light.

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36. *(Currently amended)* An optical scanner comprising:

a concatenated contact image-sensing module having a plurality of contact image sensor modules, each operatively connected to another in series; and

a timing generator for providing a start pulse into an end contact image sensor module to trigger a corresponding document reading session thereof and output a corresponding scanned image signal, wherein the end contact image sensor module is located at one end of the series-connected contact image sensor modules; ~~wherein a portion of these contact image sensor modules is placed to face one side of an object in a face-up manner and another portion is placed to face the other side of the object in a face-down manner, so that~~ the optical scanner ~~is being~~ capable of scanning a double sided document.

37. *(Currently amended)* An optical scanner comprising:

a first contact image sensor module;

a second contact image sensor module operatively connected to the first contact image sensor module in series, wherein the first contact image sensor module is placed to face one side of an object in a face-up manner and the second contact image sensor module is placed to face the other side of the object in a face-down manner so that so that the optical scanner is capable of scanning a double sided document ~~a double-sided object is scanned simultaneously by the first contact image sensor module and the second contact image sensor module, and~~ wherein first scanned image signals from the first contact image sensor module and second scanned image signals from the second contact image sensor module are read out in sequence and integrated in a computing device executing a software module to recover two images of the double sided object.

38. (*Previously added*) The optical scanner of claim 37, further including:

at least one analog-to-digital converter for receiving the first and the second scanned image signals and converting the first and the second scanned image signals into corresponding digitalized forms.